

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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IN THE PATENT APPLICATION OF:

DANNY D. BEAVER

U.S. SERIAL NO: UNKNOWN

GROUP: UNKNOWN

FILED: CONCURRENTLY

EXAMINER: UNKNOWN

FOR: FORMING SERPENTINE HEAT EXCHANGERS  
FROM SPINE FIN TUBING  
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La Crosse, Wisconsin  
November 2, 2001

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

For the benefit of the Examiner, applicant encloses copies of the following patents which were discussed in the Background section of the application and incorporated by reference into the application: U.S. Patent 3,005,253 to Venables III; U.S. Patent 3,134,166 to Venables III; U.S. Patent 3,160,129 to Venables III; U.S. Patent 3,688,375 to Venables III; U.S. Patent 4,381,592 to Venables III et al.; and, U.S. Patent 4,542,568 to Venables III et al.

Applicant also encloses and discusses copies of the following patents.

U.S. Patent 4,438,808 to Venables III et al., U.S. Patent 4,581,800 to Johnson; U.S. Patent 5,193,359 to Martin et al.; and, U.S. Patent 5,205,138 to Besore et al. are enclosed as further examples of serpentine tubing but are not considered particularly relevant to the present invention.

U.S. Patents 5,099,574 and 5,228,198, both to Paulman et al., are directed to a method of forming a heat exchanger assembly including wrapping a one-piece heat exchanger tube onto a heat transfer unit having fins on upper and lower surfaces where the fins are provided with notches for receiving a section of the heat exchanger tube. Patents are not directed to spine fin tubing and do not show the claimed invention.

Applicant also encloses copies of U.S. Patents 5,737,828 and 5,896,659, both to Barnes, as examples of methods and apparatus for continuously forming spine fin heat exchangers. These patents are commonly assigned with the present invention.

As noted, the foregoing are submitted solely to comply with applicant's duty of disclosure and are not considered to be particularly relevant to the claimed invention.

Respectfully Submitted, <sup>7</sup>

A handwritten signature in cursive script, reading "William O'Driscoll". The signature is written in dark ink and is positioned above the printed name and registration number.

William O'Driscoll  
Registration No. 33,294

Telephone Number: (608) 787-2538

Please type a plus sign (+) inside this box → +

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>C mplete if Known</b>		
Application Number						
Filing Date						
First Named Inventor		Beaver, D. D.				
Group Art Unit						
Examiner Name						
Attorney Docket Number		D-2511/WOD				
Sheet	1	of	1			

U.S. PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
		3,005,253		H. J. Venables III	10/24/1961	
		3,134,166		H. J. Venables III	05/26/1964	
		3,160,129		H. J. Venables III	12/08/1964	
		3,688,375		Venables, III	09/05/1972	
		4,381,592		Venables, III et al	05/03/1983	
		4,542,568		Venables, III et al	09/24/1985	
		4,438,808		Vanables, III et al	03/27/1984	
		4,581,800		Johnson	04/15/1986	
		5,193,359		Martin et al.	03/16/1993	
		5,205,138		Besore et al.	04/27/1993	
		5,099,574		Paulman et al.	03/31/1992	
		5,228,198		Paulman et al.	07/20/1993	
		5,737,828		Barnes	04/14/1998	
		5,896,659		Barnes	04/27/1999	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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IN THE PATENT APPLICATION OF:

DANNY D. BEAVER

U.S. SERIAL NO: UNKNOWN

GROUP: UNKNOWN

PARENT U.S. SERIAL NO: 10/005,775

PARENT GROUP: 3726

FILED: CONCURRENTLY

EXAMINER: UNKNOWN

PARENT FILED: NOVEMBER 2, 2001

PARENT EXAMINER:

ERIC B. COMPTON

FOR: FORMING SERPENTINE HEAT EXCHANGERS  
FROM SPINE FIN TUBING

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La Crosse, Wisconsin

February 17, 2004

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

In addition to the Information Disclosure Statement filed in the patent application as submitted herewith, applicant identifies the following patents as having been cited by the Examiner in the prosecution of the parent application: U.S. Patent 1,546,147 to Skinner; U.S. Patent 2,469,406 to Payne et al.; U.S. Patent 2,746,727 to Earl, Jr.; U.S. Patent 2,876,823 to Knox et al.; U.S. Patent 3,120,383 to Antwerpen et al.; U.S. Patent 3,673,845 to Vercoglio; U.S. Patent 4,439,175 to Cimochoowski et al.; and, U.S. Patent 5,669,261 to Castren.

Respectfully Submitted,



William O'Driscoll  
Registration No. 33,294

Telephone Number: (608) 787-2538

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<p style="font-size: small; margin: 0;">Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.</p> <p style="margin: 5px 0;">Substitute for form 1449/PTO</p> <p style="text-align: center; font-size: large; font-weight: bold; margin: 10px 0;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p style="text-align: center; font-style: italic; margin: 0;">(Use as many sheets as necessary)</p>		<p style="text-align: center; font-weight: bold; margin: 0;">Complete if Known</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td style="width: 50%;"></td> </tr> <tr> <td>Filing Date</td> <td></td> </tr> <tr> <td>First Named Inventor</td> <td>Danny D. Beaver</td> </tr> <tr> <td>Art Unit</td> <td></td> </tr> <tr> <td>Examiner Name</td> <td></td> </tr> <tr> <td>Attorney Docket Number</td> <td>D-2511Div1/WOD</td> </tr> </table>		Application Number		Filing Date		First Named Inventor	Danny D. Beaver	Art Unit		Examiner Name		Attorney Docket Number	D-2511Div1/WOD
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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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